

MDBA PROVISIONAL ASSESSMENT OF THE MURRUMBIDGEE KEY

FOCUS AREA

PROPONENT: NEW SOUTH WALES

Key points/summary

- The concept proposal proposes flow limits of 40,000 ML/day at Wagga Wagga. This represents a substantial increase on the current operational limit NSW reports of around 20,000 ML/day. However, it is noted that the baseline constraint, as articulated in the Murrumbidgee Water Sharing Plan, is around 30,000 ML/day at Gundagai.
- Compared to the current operational limit reported by NSW, the proposed increase in flow limit would improve the ability to manage environmental water in the Murrumbidgee, benefiting the ecology of the river and improving the effectiveness of environmental water use.
- Identification of area affected, likely effects and mitigations are appropriate for this phase of the concept proposal.
- This is a 'concept proposal', not a business case, potentially indicating it is not ready to proceed to implementation. It also proposes having a '*detailed planning and design phase of the project between 2016 and 2019, with a view to roll out of a program of works and measures between 2019 and 2024.*'
- The proposal could be improved by addressing the following concerns:
 - Some landholders have indicated unwillingness to establish easement agreements. The concept proposal notes community concern about how easements affect land title and there has been interest in investigating alternative options that provide a more flexible approach to financial agreements, such as the payment of an environmental access grant or environmental rental, the establishment of an environmental insurance fund or a combination of these. It is proposed that these ideas will need to be further developed and costed during the detailed planning and design phases from late 2016. There may need to be some consideration of changes to legislation to ensure river operating agencies are covered in relation to third party liability issues arising as a result of delivering overbank environmental flows.
 - The costing is considered to have a high level of contingency and further refinement in the future may be beneficial to reduce the cost of this proposal. In the short term, NSW should explain why this final 'concept proposal' has total costs of up to \$164 million, when the draft concept proposal had costs of up to \$156 million. This should include an explanation of why the costs of agricultural easements have increased from \$48 million to \$56 million and why the costs of new or upgraded private infrastructure, such as private bridges, crossings and pumps have increased from around \$7.1 million to \$10 million.
 - Further work will be required if the project progresses to bring the assessment of effects/mitigations/costs to a property level.
 - The concept proposal suggests the use of trial flows to progressively build confidence in the area inundated and impacts. This adaptive management

approach is sensible. However, no detail is provided about how these will be undertaken and how landholder agreement and potential compensation issues will be handled or funded.

- No risk assessment is provided – only an identification of some of the most significant risks is included. The proposal states that a process of detailed risk identification and analysis will be undertaken as part of the detailed design and planning phase. One risk which will require further assessment is the safety risk to third parties due to environmental watering events.
- No assessment of potential adverse environmental effects is provided. This was attached in the draft concept proposal but is missing here.
- The project is likely to have limited benefit unless prerequisite policy measures are implemented (ability to deliver water on top of unregulated flows and crediting of environmental return flows for downstream environmental use).
- Appendix 9 (Collingullie Landholders submission) is not attached.

Note: the MDBA has been involved in the development of the Murrumbidgee business case, including by commissioning consultants to undertake some of the technical work that the business case is based on.

1. Eligibility

Supply measure requirements (3.1.1)

The project would improve the effectiveness of environmental water in the Murrumbidgee and is likely to provide significant benefit to the ecology of the river.

Measures not included in the benchmark conditions of development (3.1.2)

The business case proposes flow limits of 40,000 ML/day at Wagga Wagga. This represents an increase on the current limit in practice reported by NSW of around 20,000 ML/day at Wagga Wagga (due to potential third party impacts). However, the benchmark conditions in the Murrumbidgee include a flow limit of 30,000 ML/day at Gundagai. The discrepancy between this benchmark flow limit and that used in practice may affect the degree to which the measure is able to provide a supply benefit.

2. Project details (4.1)

The overview in the business case for this constraints measure is appropriate.

3. Ecological values of the site (4.2)

The ecological values of the Murrumbidgee River and its low-lying floodplains are adequately provided. These values include native fish communities, a large number of billabongs/anabranch systems and extensive areas of river red gum. These values are also outlined in the *Assessment of environmental water requirements for the proposed Basin Plan: Mid-Murrumbidgee River Wetlands* (MDBA 2012) which the proposal references.

The proposal notes the significant reduction in natural watering of the low level floodplain wetlands and the effects of built up organic matter on the floodplain (and subsequent effect of blackwater events).

4. Ecological objectives and targets (4.3)

The stated objectives of the measure (page 5) are to allow the delivery of environmental flows in the Murrumbidgee that are high enough to provide beneficial watering of wetlands in the mid-Murrumbidgee to achieve environmental outcomes:

- filling of wetlands to provide benefits to wetland vegetation and fauna
- flushing of organic matter (leaf litter, etc.) to limit build up and improve water quality
- movement of organic matter and other food sources from the floodplain to the river channel to improve the health of fish and other native animal population
- improvement of the lateral and longitudinal connectivity of the system, allowing movement of fish and other fauna for breeding and other lifecycle processes.

These objectives will all be achievable if the mitigation measures proposed in the business case are all implemented, as this will allow the proposed flows to be delivered. However, there remain risks associated with implementing the mitigation measures, and the concerns around this are outlined under 'assessment of risks' below.

5. Anticipated ecological outcomes (4.4)

5.1 Anticipated ecological benefits (4.4.1)

At flows of 40,000 ML/day at Wagga Wagga, approximately 10,000 ha of wetland and approximately 44,000 ha of floodplain vegetation could be watered. This is likely to provide substantial benefit to these wetlands and the ecosystems of the river channel itself (via more regular flushing of organic matter and movement of fauna and flora).

5.2 Potential adverse ecological impacts (4.4.2)

The draft concept proposal provided a high-level assessment. This final proposal omits the assessment and this is a deficiency that should be addressed.

6. Hydrology of the area and environmental water requirements (4.5)

6.1 Current hydrology and proposed changes to the hydrology (4.5.1)

This has been adequately covered.

6.2 Environmental water requirements (4.5.2)

These are outlined in the *Assessment of environmental water requirements for the proposed Basin Plan: Mid-Murrumbidgee River Wetlands* (MDBA 2012) which the proposal references.

7. Operating regime (4.6)

This has been adequately described, with the exception of the following which require further detail (some of these are discussed further in the following section on risks):

- Risk that some landholders will not take up easements
- Description of how trial flows will be managed and effected parties will be compensated
- How safety risks will be managed.

8. Assessment of risks and impacts of the operation of the measure (4.7)

The March 2016 draft provided a high-level risk assessment. The October concept proposal omits this. Landholders have been advised (Wagga landholder meeting, 17 May 2016) that a detailed risk assessment will be undertaken. This will need to be completed and worked through with landholders to maintain community trust.

Particular risks that would require further consideration are:

- The risk that there may be a lack of landholder participation in and support for farm based mitigation options has been identified. This is likely to have some remaining residual risk even allowing for the identified mitigation strategies. The draft concept proposal notes that the community has expressed concerns about how easements affect land title and there has been interest in investigating alternative options that provide a more flexible approach to financial agreements, such as the payment of an environmental access grant or environmental rental, the establishment of an

environmental insurance fund or a combination of these. NSW suggests these ideas will need to be further developed and costed during the detailed planning and design phases from late 2016. Agencies will need to be clear of the potential funding aspects of these measures and consider whether they are feasible before communicating to landholders that they could be offered. There may also be a need to consider changes to legislation to ensure river operating agencies are covered in relation to third party liability issues arising as a result of delivering overbank environmental flows.

- Risk that flow trials are not able to proceed due to lack of landholder support or inability to organise adequate compensatory measures for these individual events.
- Risk to safety, noting mitigation measures, including maintaining and regularly updating a comprehensive list of riparian landholders and implementing and testing methods of notifying these in a timely fashion (that is, verifying and where necessarily improving methods currently undertaken by existing agencies such as the SES and Water NSW). This would also include working with councils to verify that notices are placed at isolated public campgrounds in a timely manner.
- It will be crucial that the appropriate professional expertise is available to undertake these tasks. It may be difficult to find the appropriate expertise, particularly if other constraints measures are being implemented at the same time. This risk could be identified in the risk assessment.

9. Complementary actions and interdependencies (4.9)

Without the implementation of prerequisite policy measures (ability to deliver water on top of unregulated flows and the crediting of environmental return flows for downstream environmental use) this project is likely to have limited benefit.

This project will also have interactions with, but is not contingent on, the Yanco Creek regulator project and other constraints projects (in the Murray and Goulburn).

The proposal notes that if the Yanco Creek Regulator proceeds there is the option of reducing the target flow at Wagga to 38,500 ML/day. For certainty, NSW should clarify if they will take up this option if the regulator proceeds.

10. Costs, Benefits and Funding Arrangements (4.10)

The costing is considered to have a very high level of contingency and further refinement in the future may be beneficial to ensure no overestimated costings.

11. Project governance and project management arrangements (4.11)

11.1 Legal and statutory requirements (4.11.2)

The Constraints Management Strategy Murrumbidgee Concept Proposal potentially impacts on the NSW Water Sharing Plan (WSP) for the Murrumbidgee Regulated River Water Source 2016, which is a transitional water resource plan (WRP). Such changes may relate to the specification of channel capacity constraints in section 43 of the WSP.

The information that has been provided in these documents is at a high level, so it is unclear what the extent of such changes may be, and whether any changes would introduce any new inconsistency with the Basin Plan compared with the existing transitional WRP.

If the proposal requires changes to the WSP and if NSW wishes the amendments be recognised as part of the transitional plans under the Water Act 2007, they should be submitted to the MDBA so the “no less consistent” test can be applied.

12. Other

Appendix 9 (Collingullie Landholders submission) is not attached.